

Abstract

An active tube and its system are offered which can be directed by bending its tip, controlling the degree of bend, thereby easily capable of insertion into difficult positions, and which can be driven at low temperature at which it can be used for inspection and medical treatment.

A bending mechanism (21) is constructed by wiring an SMA coil (21e) along an outer side of a working channel tube (21a). The bending mechanism (21) is inserted into an outer skin tube (25) with a plurality of built-in weights (22). A front tip (23) is attached to the front end side of the bending mechanism (21) as a tip (2) of an active tube (1). A main tube (4) is connected through the working channel tube (21a) at the tip (2). A wire (21g) is connected to the SMA coil (21e). Said wire (21g) is inserted to the behind end side (41) of the main tube (4) in a wiring channel (4B9) of the main tube, thereby makes it possible to drive the bending mechanism (21) from outside.